

219 MAINTENANCE - INSTALLATION, REPAIR AND OPERATION

This basic category includes maintenance shops for repair and overhaul of installation facilities (public works and public utilities), including installed shop and other equipment, and utility distribution systems, used in support of maintenance operations at military and/or industrial installations. The maintenance and repair of vehicles and weight-handling and construction equipment, utility plant, and maintenance shops are not included in this category. For the former, see Basic Category 214 and 218, and the latter see 811.

219 10 PUBLIC WORKS SHOP (SF)

NOTE: For shop planning in Public Work Centers, individual guidance will be provided by NAVFAC (Code 15).

This facility supports the Maintenance Division of the Public Works Department. This Division is responsible for management of the Preventive, Maintenance Inspection (PMI) program and is tasked to perform maintenance on:

1. All buildings, grounds and ground structures.
2. Utilities plants and distribution systems when requested by the Utilities Division.
3. Heating, air-conditioning and refrigeration systems.
4. Internal communications and alarm systems.
5. Roads and trackage.

This work includes repairs, alterations and new construction incident to maintenance; except work that may be accomplished by private contract. In addition the Maintenance Division is responsible for the following services:

6. Respond to emergency and/or service work requests.
7. Provide caretaking services.
8. Provide upkeep to all grounds of the activity.
9. Provide for solid waste collection.
10. Provide pest control service.

Certain Public Works Department functions are not performed at the Public Works Shop as defined for code 219 10, such as:

11. Administration when not in direct support of a maintenance shop. This includes offices for the Public Works Officer (PWO), Assistant PWO, Maintenance Control Division, Maintenance Division supervisor and staff, Engineering Division, Administrative Division and Housing Division.
12. Work performed by the Utilities Division such as operating utilities plants and distribution systems.
13. Maintenance and repair of automotive equipment.

Facilities for these functions are categorized under the following category groups as appropriate: 610- Administration, 218- Maintenance - Facilities for Miscellaneous Procured Items and Equipment, 214- Maintenance - Tank, Automotive, and the applicable code groups in the 800 series - Utilities and Ground Improvements.

The maximum allowable gross area for public works shops, including space for heating and mechanical equipment, is based on the number of military and civilian maintenance personnel permanently assigned to the maintenance organization. This does not include those personnel involved in functions not directly performed by the shop as outlined above. Table 219-10 lists the gross area for the various sizes of maintenance shops including category code 219-20, Pavement and Grounds Equipments Shed and 219-25, Public Works Shops Expendable/Work-in-Process Store.

TABLE 219-10
Space Allowance - Public Works Shops*

Shop Type	Total Maintenance Personnel	Gross Area (SF)*
A	10 - 30	8,700
B	31 - 50	12,100
C	51 - 100	16,700
D	101 - 150	21,100
E	151 - 300	28,300
F	301 - 500	34,800
	Over 500	100 SF/Pers.

*The areas indicated in Table 219-10 represent the entire composite area for the Public Works Maintenance Shop. Included within these figures are the areas allocated for category codes 219 20, Pavement and Grounds Equipment Shed, Table 219-20, and 219-25, Public Works Shops Expendable/Work-In-Process Store, Table 219-25. The requirement for the last two codes must not be added to this code but rather are considered an integral part of it. The figures indicated in the tables for these two codes are provided as a guide as to how category code 219 10 may be subdivided. In the event the requirement for category codes 219 20 and 219 25 are less than indicated, it is not necessary to reduce the figures indicated in Table 219-10 but rather, this difference in area may be used for other functions performed by this shop.

The gross areas listed in Table 219-10 provide for the following functions: (1) the woodworking shop, including furniture repair, packing, and crating, excluding the packing and crating in Basic Categories 441 and 442); (2) the electrical shop, refrigeration and air conditioning shop; (3) plumbing and heating shop; (4) metal work shop, including machine shop, sheet metal, iron work, welding, and blacksmith facilities; (5) paint shop; (6) routine maintenance and service shops, including custodial, preventive maintenance, refuse collection, insect and rodent control, road maintenance facilities, moving and rigging, and emergency service shops; (7) central tool issue, shop stores and shop toilets, and locker rooms, and (8) administrative spaces in direct support to shop operations, corridors, and necessary service space directly related to the shop. If other than the foregoing functions are required, space may be appropriately increased if justifications are documented.

219 20 PAVEMENT AND GROUNDS EQUIPMENT SHED (SF)

The pavement and grounds equipment shop will provide holding space and minor maintenance space for tractors, lawnmowers, snowplows, and other miscellaneous equipment used for roads and ground maintenance. This shop can be independent of the Public Works Maintenance Shop (219 10) but is related for space allowances to the corresponding PW shop type. The gross square foot allowances on Table 219-20 are provided for planning guidance only and are not additive to the Public Works shop allowances. See footnote to Table 219-10.

TABLE 219-20
Space Allowance - Pavement and Grounds Equipment Shop

Shop Type	Gross Area (SF)
A	525
B	700
C	850
D	1,100
E	1,800
F	2,200

219 25 PUBLIC WORKS SHOPS EXPENDABLE/WORK-IN-PROCESS STORE (SF)

The public works shops expendable/work-in-process store holds the ready-issue items for public works daily maintenance, job order materials for the maintenance of station facilities and materials that are considered critical items for emergencies/service. It is independent of the General Supply Storage (Code 441 10). The shop can also be independent of the Public Works Shop (Code 219 10) but is related for space allowances to the corresponding PW shop type. See Table 219-25. The gross square foot allowances on Table 219-25 are provided for planning guidance only and are not additive to the Public Works shop allowances. See footnote to Table 219-10.

TABLE 219-25
Space Allowances - Public Works Shop Store

Shop Type	Gross Area (SF)
A	650
B	1,000
C	1,100
D	1,400
E	2,200
F	2,500

Definitive Designs, NAVFAC P-272, show the Public Works Shop Stores (Code 219 25) and Pavement and Grounds Equipment Shop as integral parts of the public works maintenance shops.

219 30 PAINTING AND RELATED OPERATIONS BUILDING (SF)

The function of the painting and related operations building is to provide space for painting and other operations which may not be functionally compatible or hazardous to the building or types of operation conducted in the public works shop, category code 219 10. This facility is considered as an integral part of category code 219 10 but may, in some instances, be a separate building if safety or functional requirements so dictate. However, in all cases, the area allocated for this facility must be considered as part of the area for the corresponding shop types listed in Table 219-10 and must not be considered as an additional requirement.

219 31 PAINTING AND RELATED OPERATIONS STRUCTURE (EA)

The painting and related operations structure is a facility used for painting and those operations which are not suitable to be carried on in category code 219 30, Painting and Related Operations Building. This code may include structures like a sandblast scaffold, paint spray booth, preservation dip tank, pickling tank, sandhopper, sandblasting facilities, open paint canopy, sand handling bin, etc. There are no specific planning criteria for these structures, each requirement must be individually justified.

219 77 PUBLIC WORKS MAINTENANCE STORAGE (READY ISSUE/SHOP STORES/MISC.) (SF)

This facility is a general warehouse for the storage of items and materials required for the maintenance of station buildings and grounds. It is independent of the ready-issue storage facilities required in direct support of the public works shops (use Code 219 25).

Shed storage space is required to provide covered storage for certain items of equipment and supplies needed for base operation and maintenance, which do not require regular warehouse storage, yet must be protected from the weather. Table 219-77 may be used to determine covered storage requirements for various sizes of public works facilities.

TABLE 219-77
Public Works Storage Areas

Shop Type	Gross SF Area	
	Covered	Shed
A	3,400	2,300
B	3,400	2,300
C	3,400	2,300
D	6,000	4,000
E	12,500	8,300
F	19,200	12,800

NOTE: For Public Works Storage supporting PW shops larger than type F, add the following areas for each maintenance craftsman over 500: covered 40 SF; Shed - 25 SF